LOUISIANA DEPARTMENT OF WILDLIFE & FISHERIES



OFFICE OF FISHERIES INLAND FISH SECTION

PART VI-A

WATERBODY MANAGEMENT PLAN SERIES

BLACK BAYOU LAKE (CADDO PARISH)

LAKE HISTORY & MANAGEMENT ISSUES

CHRONOLOGY

DOCUMENT SCHEDULED TO BE UPDATED ANNUALLY

January 2013—Prepared By: James Seales, Biologist III, District 1

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Lake History

GENERAL INFORMATION

Parish/ location

Caddo Parish – near the town of Hosston, LA

Date Lake Formed

Originally impounded in 1945, covering 1,950 acres. Lake level raised 4 feet in 1955 to current area of 3,960 acres.

Impoundment

Impoundment of Black Bayou in 1945.

Size (surface area)

3,960 acres

Watershed

231 square miles of area (147,840 acres) drain into Black Bayou. The ratio of watershed to lake surface is 38:1.

Pool Stage

Surface elevation of Black Bayou is set at the spillway elevation of 183 MSL (mean sea level).

Spillway Width

Concrete weir spillway, 400 feet wide. The spillway is pictured in figure 1.



Figure 1. Looking west along the spillway at Black Bayou Lake, LA, 2011.

Drawdown (outlet) structure description

The outlet structure consists of two 48 inch diameter steel sluice gates upstream of two 60 inch diameter CMP drawdown pipes situated approximately 200 feet east of the principal spillway. The drawdown gates have not been operated since 1994 and appear rusted and inoperable. The access ramp to the wooden platform for accessing the drawdown gates is missing and the wooden platform is deteriorated and in need of replacement.

Who Controls

The Louisiana Department of Transportation and Development (DOTD) is responsible for operation and maintenance of the dam and control structure on Black Bayou Lake. The Black Bayou Watershed Commission is responsible for the maintenance of Black Bayou Lake for the purpose of conserving the soil and water and developing the natural resources of the district. Drawdown requests from lake commission require LDWF approval prior to DOTD opening the control structure. Drawdown recommendations by LDWF are presented to the Black Bayou Watershed District for approval prior to implementation. Requests for control structure openings to facilitate lake management drawdowns must be directed to the Secretary of DOTD in writing from the Secretary of the Department of Wildlife and Fisheries or his designee.

LAKE AUTHORITY

Association

Black Bayou Watershed District

Authorization

Created in 1966 by R.S. 38:2821 through 38:2842 as a political subdivision of the state of Louisiana. See **Appendix I**.

Board of Commissioners – Black Bayou Watershed District

Members are appointed by the Caddo Parish Commission and are listed in Table 1.

Table 1. Members of Black Bayou Watershed District Board of Commissioners as of October 2012.

Name	Address	Term Expires
David Hale (President)	1580 Northeast Front Street Vivian, LA 71082	8-14-2014
Elmer E. Moreau	711 North Spruce Street Vivian, LA 71082	8-14-2014
Charles Reynolds	102 Shelton Street Vivian, LA 71082	8-14-2014
Vernon Jennings	PO Box 632 Vivian, LA 71082	8-14-2014
Charles Dennis Barr	PO Box 494 Vivian, LA 71082	8-14-2014

ACCESS

Boat Ramps

There are two public parks with boat launching facilities available for use at Black Bayou Lake. Their names, physical descriptions and geo-referenced locations are found in Table 2 below. Each ramp has boat mooring areas and a fishing pier is located adjacent to the ramp at Robert L. Nance Park which is near the dam on the lake. Restrooms, picnic tables, and playgrounds areas are located adjacent to each ramp. These parks are operated and maintained by the Caddo Parish Parks and Recreation Department.

Table 2. – Black Bayou Lake, LA, Public Boat Ramps.

Ramp	Coordinates	Ramp	Parking
Robert L. Nance Park	N 32.88466 ⁰ W 93.89302 ⁰	Concrete	Blacktop – 20 Trailers
Noah Tyson Park	N 32.92895 ⁰ W 93.97533 ⁰	Concrete	Blacktop – 12 Trailers

See Appendix II - "Black Bayou Lake Public Boat Ramps" for mapped locations of ramps.

Piers

There are is a public fishing pier located in Robert L. Nance Park on the lake. There is also a smaller boat mooring pier at this location and a boat mooring pier at Noah Tyson Park that can also be utilized for fishing access. Figure 2 depicts the boat mooring pier and the fishing pier at Robert L. Nance Park.



Figure 2. Boat Mooring Pier and Fishing Pier at Robert L. Nance Park on Black Bayou Lake, LA.

SHORELINE DEVELOPMENT

The shoreline of the lake is bordered by bottomland hardwoods forests intermingled with moderate shoreline development consisting primarily of modest homes and camps. Pine plantations and occasional pasture land are found outside of the low lying floodplain of Black Bayou.

PHYSICAL DESCRIPTION OF LAKE

Shoreline Length

Approximately 36 Miles

Timber Type

Prior to impoundment, Black Bayou Lake was a natural cypress / tupelo swamp. Impoundment stabilized and raised the water level and also inundated the bottomland hardwood forest within the contour of the lake.

The upper half of the lake is a dense cypress / tupelo forest as depicted in Figure 3. Most areas in the upper half of Black Bayou Lake with the exception of the channel of Black Bayou are not navigable by most vessels.



Figure 3. Aerial view of Black Bayou Lake, LA, taken from Google Earth which depicts the dense cypress / tupelo forest typical of the upper end of the lake. 2011 Imagery.

The lower half of the lake contains scattered cypress trees and many areas where the stumps from the bottomland hardwood timber persist to this day and pose a hazard to navigation. Figure 4 shows an area typical of the middle and lower part of Black Bayou Lake.



Figure 4. Aerial view of Black Bayou Lake taken from Google Earth which depicts the habitat typical of the middle and lower part of the lake. 2011 Imagery.

Average Depth

4.6 feet

Maximum Depth

9 Feet

<u>Total Water Storage Volume at Pool Stage</u> 17,750 acre feet

<u>Natural Seasonal Water Fluctuation</u> 2-3 feet

EVENTS/ PROBLEMS

Navigation Hazards / Channel Marking

The dense cypress / tupelo forest in the upper half of Black Bayou Lake limits most vessels to the channel of Black Bayou. Other than the bayou channel itself, there are very few natural open areas that can be navigated. Some meander scars of the bayou channel and natural sloughs exist that are not so densely forested, but they can be difficult to access. Stumps constitute a major navigation hazard in the lower end of the lake. Areas outside of the bayou channel are also difficult to navigate.

The original bayou channel of Black Bayou Lake is relatively free of underwater obstructions and is wide enough to accommodate recreational watercraft in most areas. This channel has been marked by the Caddo Parish Parks and Recreation Department with numbered pilings.

Eutrophication

Black Bayou Lake is typical of many impounded natural cypress swamps in that their rate of eutrophication has been accelerated by the altered hydrological regime. Aquatic vegetation and leaf litter from the dense forest canopy contribute to a buildup of organic matter on the lake bed. This organic muck degrades fisheries habitat. In a natural cypress swamp, periods of low water in the late summer and early fall facilitate decomposition of organic matter through aerobic decomposition. Without the natural water fluctuation, leaf litter and dead aquatic vegetation are subject to the much slower anaerobic decomposition. Anaerobic decomposition of leaf litter in Black Bayou is responsible for accretion of organic material and an associated decline in water quality and fish productivity.

Drawdown Capability

At present drawdown capability is limited to 6 feet below normal pool stage due to sediment deposits in front of the control structure. With the sediment removed, Black Bayou Lake can be dewatered between 7 and 7.5 feet below pool.

The condition of the control structure is in question as the drawdown gates were described as appearing to be rusted and inoperable in the last dam inspection conducted on April 26, 2011, by DOTD.

Ownership of Lake Bed

Nearly the entire lake bed with the exception of the old channel of Black Bayou is in private ownership. Several property owners within the watershed district have attempted to restrict recreational use of the lake where they owned the water bottom. In the past, issues such as placement of duck blinds, timber harvest, boat passage, and recreational activities on Black Bayou Lake have been contested by some of the owners of the lake bed.

MANAGEMENT ISSUES

AQUATIC VEGETATION

Nuisance aquatic vegetation has been a long term problem for Black Bayou Lake shoreline property owners. In 1955 pool stage was raised 4 feet in an effort to improve fishing and combat aquatic vegetation. The submerged aquatic vegetation problem persisted after this increase in pool level.

A series of four drawdowns were conducted in 1977, 1979, 1980 and 1981. These drawdowns began in the summer with start dates ranging from June 1 to mid-August, and ended with the gates being closed in January of the following year. Correspondence and documentation relating to these drawdowns was vague, but it appears that good results were obtained after the series of three consecutive drawdowns from 1979 to 1981. Marked improvements were noted during the type map surveys conducted in 1982, 1983, and 1984. Prior to the series of drawdowns Brazilian elodea (*Egeria densa*), fanwort (*Cabomba caroliniana*), coontail (*Ceratophyllum demersum*), and bladderwort (*Utricularia spp.*) were present in moderate to severe infestations in many areas of the lake. Following the series of drawdowns, these plants were not eliminated from the reservoir, but the coverage was greatly reduced in most areas. The upper one third of the lake still had a moderate to severe infestation of Brazilian elodea (*Egeria densa*), but as a whole, the lake was more accessible for recreational activities.

By 1985, coverage of submerged aquatic vegetation, primarily Brazilian elodea (*Egeria densa*), had increased to the extent that another drawdown was conducted. The lake was dewatered beginning August 15, 1985. Correspondence indicates that the results of this drawdown were poor with virtually no change in plant species present and only a slight decrease in density in some areas. Another drawdown was conducted in the fall / winter of 1986 – 1987 for aquatic vegetation control. Heavy rains kept the lake at or above pool stage during the winter due to the large watershed of the reservoir. A third consecutive drawdown was initiated on June 1, 1987 as the vegetation coverage was still severe in many areas of the lake. A type map survey conducted in the summer of 1988 indicates that the results of this drawdown were good. Subsequent type map surveys indicate aquatic vegetation coverage to be very light through the summer of 1991. The 1992 type map survey indicated an increase in submerged aquatic vegetation, primarily fanwort (*Cabomba caroliniana*) in the upper end of Black Bayou Lake. The 1993 and 1994 type map surveys indicate an increase in aquatic vegetation each year.

Black Bayou Lake was drawn down again beginning July 15, 1995, the gates were closed and the lake began refilling on October 15, 1995. The results of this drawdown were good. Type map surveys conducted in 1998 and 1999 indicate light coverage in the middle and lower end of the lake and moderate to severe coverage in the upper end. A survey conducted during the summer of 2000 revealed that submerged aquatic vegetation covered approximately 35% to 40% of the lake. Coverage of submerged aquatic vegetation in the area north of the Mira – Myrtis Bridge was 90% to 100%. A recommendation to draw the lake down in the fall / winter of 2000 was made by LDWF but was rejected by the lake commission.

A type map survey conducted in November, 2006, showed that aquatic vegetation covered approximately 70% to 75% of Black Bayou Lake. Another type map survey conducted in June of 2009, indicated approximately 80% of the lake was infested with aquatic vegetation.

Hydrilla (*Hydrilla verticillata*) has been present on the lake for several years and has increased in coverage area and density forming thick mats as such as the one depicted in Figure 5.



Figure 5. Mat of hydrilla (*Hydrilla verticillata*) on Black Bayou Lake, LA, 2011.

Granular herbicide applications made in the early years after the initial discovery were not effective. Hydrilla (*Hydrilla verticillata*) continues to expand in coverage area and displace native submerged aquatic vegetation. This invasive plant species has tremendous negative effect on fishing and boating access.



Figure 6. Fishing pier at Robert L. Nance Park surrounded by a mat of hydrilla (*Hydrilla verticillata*). LDWF file photo.

The effectiveness of drawdowns as a vegetation control measure is determined by a combination of interdependent factors. The most significant of those factors are weather related. Under the most desirable scenario, rainfall would be limited during the drawdown period to allow for a successful and sustained lake dewatering. Subfreezing temperatures would also contribute to provide additional control. Conversely, untimely rainfall and warmer temperatures diminish benefits of the management effort. In effect, the success of Black Bayou Lake drawdowns is linked to unpredictable and uncontrollable events that occur after the water body is dewatered.

Prior to the initial occurrence of giant salvinia (*Salvinia molesta*) in 2007, LDWF recommendations included a series of three mid-summer drawdowns. The control gates were to be to be opened July 15 and closed by mid-November of the same year. This plan was not endorsed by the Black Bayou Watershed Commission. With the discovery of giant salvinia the recommendation was rescinded due to concerns that any reduction in competition from other aquatic plants would result in a rapid expansion of giant salvinia.

Observations made during the fall of 2011 indicate that approximately 90% of Black Bayou Lake is covered with submerged aquatic vegetation. The infestation is comprised predominately of hydrilla (Hydrilla verticillata). Fanwort (Cabomba caroliniana),

bladderwort (*Utricularia spp.*), and coontail (*Ceratophyllum demersum*) are also problematic on the lake. Large mats of water hyacinth (*Eichhornia crassipes*) were found on the upper end of the lake with giant salvinia (*Salvinia molesta*) mixed in.

DRAWDOWN HISTORY

Black Bayou Lake has been drawn down for various reasons since it's impoundment in 1945. Dates, elevation below pool, purpose of these drawdowns, results of the drawdown and any associated issues are reported in Table 4.

Table 4. Drawdown history of Black Bayou Lake, LA, from 1954 to 2011.

Date Opened	Date Closed	Depth Below Pool	Purpose	Results	Issues
Unknown Month / 1954	Unknown Month/ 1955	Unknown	Spillway	Lake level raised 4 feet	No appreciable benefits.
Unknown Month / 1961	Unknown	Unknown Lake was 3' below pool on 8/17/61	Work on spillway	Unknown	None known
11/1973	Unknown – completion of work	3 to 5 feet	Expose stumps to allow contractors to bid on channel marking	Unknown	None known
7/19/1977	1/20/1978	Unknown (likely 6 feet)	Aquatic vegetation control – primarily Egeria	Poor	
8/17 /1979	Jan / Feb 1980	Unknown	Aquatic vegetation control	Poor	
Unknown Month / 1980	Unknown	Unknown	Unknown	Unknown	
6/1/1981	1/15/1982	Unknown (likely 6 feet)	Aquatic vegetation control	Unknown	
8/15/1985	2/1/1986	6 feet	Aquatic vegetation	Poor – virtually no	Very mild winter in 85/86.

			control – primarily Egeria	change in plant species and only slight decrease in density in some areas	
Fall/1986	2/15/1987	Unknown – likely maximum (app. 6 feet)	Aquatic vegetation control	Poor	Lake refilled and remained at or above pool stage during winter due to rainfall in the large watershed. Lake was 2.5 feet down and falling in May 1987 due to obstruction in one of the control gates.
6/1/1987	1/15/1988	Unknown - likely maximum (app. 6 feet)	Aquatic vegetation control	Good	
7/15/1995	10/15/1995	Unknown - likely maximum (app. 6 feet)	Aquatic vegetation control	Good	Pool stage achieved after 3/11/1996 due to dry conditions.

Aquatic Vegetation Surveys and Type Maps

Vegetation type map surveys were conducted annually by the Aquatic Plant Control Section from 1980-1985, 1988, 1990-1995, 1998-1999, 2006 and in 2009. See **Appendix III.**

Aquatic Vegetation Treatment History

Foliar herbicide applications by LDWF spray crews for floating and emergent aquatic vegetation have been ongoing for many years on Black Bayou Lake. Table 3 lists the acreages treated from 2005 to 2012.

Table 3. – Herbicide Applications in Black Bayou Lake, LA, 2005 – 2012.

Treatment Year	Primary Plant Species Acres Treated	
2005	water hyacinth, American lotus 20	
2007	water hyacinth, alligatorweed	34
2008	water hyacinth, duckweed, giant salvinia	532
2009	water hyacinth, duckweed, giant salvinia	770
2010	duckweed, water hyacinth, alligatorweed, giant salvinia 652	
2011	giant salvinia, water hyacinth 392	
2012	giant salvinia, water hyacinth 46	

HISTORY OF REGULATIONS

Recreational

Statewide regulations have been in effect for all game fish species since impoundment.

The recreational fishing regulations for 2012 may be viewed at the link below:

http://www.wlf.louisiana.gov/sites/default/files/pdf/publication/31743-recreational-fishing-regulations/2012_fishing_regulations.pdf

Commercial

Statewide regulations have been in effect for all commercial species since impoundment.

The 2012 statewide commercial fishing regulations may be viewed at the link below:

http://www.wlf.louisiana.gov/sites/default/files/pdf/publication/31745-commercial-fishing-regulations/2012_commercial_fishing.pdf

FISH KILLS/ DISEASE HISTORY, LMBV

2004 – On July 24, 2004, LDWF personnel investigated a fish kill involving hundreds of fish including mostly gizzard shad, largemouth bass, black crappie, chain pickerel, and smaller numbers of warmouth, redear, common carp, spotted gar, yellow bullheads, spotted suckers, and lake chubsuckers. The kill was located in the extreme upper end of the lake near the Hwy. 1 Bridge. The investigation points to dissolved oxygen problems as the dissolved oxygen was below 1.0 mg/L. at the surface at all 4 locations sampled.

2007 – On July 9, 2007, LDWF personnel investigated a fairly extensive fish kill involving several thousand fish including approximately 100 largemouth bass, 75 white crappie, 150 black crappie, 400 bluegill, 100 redear, 50 warmouth, 50 chain pickerel, and over 1500 gizzard shad. The fish kill was likely caused by low dissolved oxygen as four stations were sampled in the area of the fish kill and all four had dissolved oxygen levels below 1.0 mg/L. Heavy rains and extensive cloudy weather had preceded the fish kill. Fish were observed piping at the time of the field investigation.

2009 – A small fish kill was reported on May 5, 2009. No field investigation made due to delayed notification. Species involved unknown.

LMBV - No fish kills have occurred where Largemouth Bass Virus is suspected to be a factor as all documented fish kills equally affected other species in addition to largemouth bass. Largemouth Bass Virus is a naturally occurring waterborne virus that effects fish, but is not known to infect warm-blooded animals. The virus has been found in other members of the sunfish family, but has only proved fatal to largemouth bass. The virus affects the swim bladder in largemouth bass. Largemouth bass which are exhibiting symptoms of the disease lose their ability to control their buoyancy and experience trouble swimming and appear bloated. The fish will eventually float to the surface where they can be affected by other environmental stressors. Most bass infected with largemouth bass virus appear normal. Adult bass weighing two pounds or more appear to be most susceptible to the disease. Researchers are uncertain as to what triggers an epizootic outbreak, but as most fish kills occur during the warmer months, high water temperatures and poor water quality may contribute to development of the disease. It is uncertain as to whether Largemouth Bass Virus will have any long term impacts to any body of water where it is known to occur. It appears that the incidence of disease and infection rate diminishes with time after the initial infection of fish in a given waterbody. Sampling for Largemouth Bass Virus has not been conducted on Black Bayou Lake.

CONTAMINANTS/POLLUTION

A Fish Consumption Advisory was issued for Black Bayou Lake on 3/8/06. The advisory indicates unacceptable levels of mercury in largemouth bass and bowfin. See <u>Appendix IV</u> for complete details of the advisory.

BIOLOGICAL

Fish Sampling History:

The Louisiana Department of Wildlife and Fisheries has conducted fisheries sampling on Black Bayou Lake for a number of years. The fish sampling history from 1973 to 2011 is found in Table 5.

Table 5. Fish samples taken on Black Bayou Lake, LA, from 1973 to 2011.

	BLACK BAYOU LAKE FISH SAMPLING			
YEAR	GEAR			
1973	3 – One Acre Rotenone Sets			
1975	3 – One Acre Rotenone Sets			
1977	2 – One Acre Rotenone Sets			
1978	3 – One Acre Rotenone Sets			
1980	3 – One Acre Rotenone Sets			
1986	2 – One Acre Rotenone Sets			
1988	4 – One Acre Rotenone Sets			
1989	2 – One Acre Rotenone Sets			
1993	2 – One Acre Rotenone Sets			
	Electrofishing 6 – 15 minute samples - Spring			
1994	Electrofishing – 5 – 15 minute samples – Fall / Includes 1 Forage Sample			
1996	Electrofishing – 7 – 15 minute samples – Fall / Includes 1 Forage Sample			
1997	Electrofishing 3 – 15 minute samples - Spring			
2000	Electrofishing 4 – 15 minute samples - Spring			
2001	Gill Nets:			
	6 – 300' Gill Nets Sets – 2.5" Bar, Mono			
	6 – 300' Gill Nets Sets – 3" Bar, Mono			
	6 – 300' Gill Nets Sets – 3.5" Bar, Mono			
	6 – 300' Gill Nets Sets – 4" Bar, Mono			
2005	Electrofishing 5 – 15 minute samples – Spring			
	Gill Nets:			
	4 – 300' Gill Nets Sets – 2.5" Bar, Mono			
	4 – 300' Gill Nets Sets – 3" Bar, Mono			
	4 – 300' Gill Nets Sets – 3.5" Bar, Mono			
• • • • • • • • • • • • • • • • • • • •	4 – 300' Gill Nets Sets – 4" Bar, Mono			
2008	Electrofishing 6 – 15 minute samples – Spring			
2011	Electrofishing 7 – 15 minute samples – Fall / Includes 1 Forage Sample			
2011	Gill Nets:			
	6 – 300' Gill Nets Sets – 2.5" Bar, Mono			
	6 – 300' Gill Nets Sets – 3" Bar, Mono			
	6 – 300' Gill Nets Sets – 3.5" Bar, Mono			
2012	6 – 300' Gill Nets Sets – 4" Bar, Mono			
	No Sampling Scheduled			
2013	No Sampling Scheduled Floatrofishing 6 15 minute samples Spring			
2014	Electrofishing 6 – 15 minute samples – Spring			
	Electrofishing 7 – 15 minute samples – Fall / Includes Forage Sample			

6 – 300' Gill Nets Sets – 2.5" Bar, Mono
6 – 300' Gill Nets Sets – 3" Bar, Mono
6 – 300' Gill Nets Sets – 3.5" Bar, Mono
6 – 300' Gill Nets Sets – 4" Bar, Mono
Largemouth Bass Genetic Analysis (N=60)

Lake Records

The Louisiana Outdoor Writers Association (LOWA) is the official curator of fish records for the State of Louisiana. No lists are kept specifically for Black Bayou Lake, but the third place LOWA listing is a 15.82 pound largemouth bass caught from Black Bayou Lake in 2009. Complete information regarding Louisiana fish records is included in the attached site:

http://www.laoutdoorwriters.com/Records/LouisianaFishRecords/tabid/87/Default.aspx

Stocking History

Florida largemouth bass stockings on Black Bayou Lake were initiated in 1989 in an effort to offer anglers a chance to catch a fish of greater average size. Numbers of fish stocked are listed in Table 6. A largemouth bass weighing 15.82 lbs. was caught in 2009. The genetic identity of this fish was undetermined, but it was likely a result of the Florida bass stockings in preceding years. Anecdotal information from anglers also indicates a large number of fish larger than 10 lbs. being caught from this lake.

Table 6. The stocking history of Black Bayou Lake, LA from 1988 to 2011.

Date	Number / Species stocked		
1988	2,800 Channel catfish fingerlings		
1989	17,000 Florida largemouth bass fingerlings		
	1,800 Flathead catfish fingerlings		
1991	30,000 Florida largemouth bass fingerlings		
1996	94,167 Florida largemouth bass fingerlings		
2003	35,720 Florida largemouth bass fingerlings		
2004	30,125 Florida largemouth bass fingerlings		
2005	35,067 Florida largemouth bass fingerlings		
2010	31,285 Florida largemouth bass fingerlings		
2011	29,233 Florida largemouth bass fingerlings		

Species Profile:

A list of freshwater fish species collected during standardized sampling efforts can be found in Table 7 below:

Table 7. List of indigenous freshwater fishes found in Black Bayou Lake through LDWF standardized sampling efforts.

Fish species collected through standardized sampling efforts

Gar Family, LEPISOSTEIDAE

Spotted gar, *Lepisosteus oculatus* (Winchell) Longnose gar, *Lepisosteus osseus* (Linnaeus) Shortnose gar, *Lepisosteus platostomus* Rafinesque Alligator gar, *Lepisosteus spatula* (Lacépède)

Bowfin Family, AMIIDAE

Bowfin, Amia calva Linnaeus

Freshwater Eel Family, ANGUILLIDAE

American eel, *Anguilla rostrata* (Lesueur)

Herring Family, CLUPEIDAE

Gizzard shad, *Dorosoma cepedianum* (Lesueur) Threadfin shad, *Dorosoma petenense* (Günther)

Minnow Family, CYPRINIDAE

Blacktail shiner, *Cyprinella venusta* (Girard) Common Carp, *Cyprinus carpio* Linnaeus Golden shiner, *Notemigonus crysoleucas* (Mitchill)

Sucker Family, CATOSTOMIDAE

River carpsucker, *Carpiodes carpio* (Rafinesque) Lake chubsucker, *Erimyzon sucetta* (Lacépède) Smallmouth buffalo, *Ictiobus bubalus* (Rafinesque) Bigmouth buffalo, *Ictiobus cyprinellus* (Valenciennes) Spotted sucker, *Minytrema melanops* (Rafinesque)

Freshwater Catfish Family, ICTALURIDAE

Black bullhead, *Ameiurus melas* (Rafinesque) Yellow bullhead, *Ameiurus natalis* (Lesueur) Brown bullhead, *Ameiurus nebulosus* (Lesueur) Blue catfish, *Ictalurus furcatus* (Lesueur) Channel catfish, *Ictalurus punctatus* (Rafinesque) Tadpole madtom, *Noturus gyrinus* (Mitchill)

Flathead catfish, *Pylodictis olivaris* (Rafinesque)

Pike Family, ESOCIDAE

Grass pickerel, *Esox americanus vermiculatus* Lesueur Chain pickerel, *Esox niger* Lesueur

Pirate Perch Family, APHREDODERIDAE

Pirate perch, Aphredoderus sayanus (Gilliams)

Killifish Family, CYPRINODONTIDAE

Blackstripe topminnow, *Fundulus notatus* (Rafinesque)

Silverside Family, ATHERINIDAE

Brook silverside, Labidesthes sicculus (Cope)

Temperate Bass Family, PERCICHTHYIDAE

Yellow bass, *Morone mississippiensis* Jordan and Eigenmann

Sunfish Family, CENTRARCHIDAE

Flier, Centrarchus macropterus (Lacépède)

Banded pygmy sunfish, Elassoma zonatum Jordan

Green sunfish, Lepomis cyanellus Rafinesque

Warmouth, Lepomis gulosus (Cuvier)

Orangespotted sunfish, Lepomis humilis (Girard)

Bluegill, *Lepomis macrochirus* (Rafinesque)

Dollar sunfish, *Lepomis marginatus* (Holbrook)

Longear sunfish, *Lepomis megalotis* (Rafinesque)

Redear sunfish, *Lepomis microlophus* (Günther)

Redspotted sunfish, Lepomis miniatus Jordan

Bantam sunfish, Lepomis symmetricus Forbes

Spotted bass, *Micropterus punctulatus* (Rafinesque)

Florida largemouth bass, Micropterus floridanus

(Kassler et al.)

Northern largemouth bass, *Micropterus salmoides salmoides* (Lacépède)

White crappie, *Pomoxis annularis* Rafinesque

Black crappie, *Pomoxis nigromaculatus* (Lesueur)

Perch Family, PERCIDAE

Logperch, Percina caprodes (Rafinesque)

Drum Family, SCIAENIDAE

Freshwater drum, Aplodinotus grunniens Rafinesque

Largemouth Bass Genetics

Genetic analysis of the largemouth bass population was conducted in 2008. The results are listed in Table 8 and an overall Florida influence of 24% is indicated.

Table 8. – Largemouth Bass Genetic Analysis from Black Bayou Lake, LA, 2008.

Year	Number	Northern %	Florida %	Hybrid %
2008	34	76	3	21

<u>Threatened/Endangered/Exotic Species</u>

No threatened or endangered fish species are known to inhabit Black Bayou Lake.

CREEL

No creel surveys have been conducted on Black Bayou Lake.

HYDROLOGICAL CHANGES

The spillway crest height was raised 4 feet in 1955 increasing the lake surface area from 1,950 acres to the current 3,860 acres.

WATER USE

Fishing, waterfowl hunting, and some boating (limited due to excessive timber, snags and aquatic vegetation problems).

HUNTING

Waterfowl hunting is locally popular on Black Bayou Lake.

APPENDIX I – Black Bayou Watershed District - Enabling Legislation (return to authorization)

RS 38:2821 - 38:2842

PART VIII. BLACK BAYOU WATERSHED DISTRICT

§2821. Creation; location

The Black Bayou Watershed District is hereby created out of Black Bayou embracing the area north of the present Black Bayou dam situated and located on State Route 109 in Caddo Parish, the watershed of said bayou north of said dam and the area immediately south of said dam which is affected by said dam, which area is described as follows, towit:

All of the area presently comprising Ward 9 of Caddo Parish, all of that part of Ward 1 of Caddo Parish lying north of the following line, to-wit: Begin at the intersection of the East line of Ward 2 of Caddo Parish and the Belcher-Caddo City Road (State Route #530) thence run Easterly along said road to the Gamm Road, thence run Northerly along said Gamm Road to the North line of Section 26, Township 21 North, Range 15 West, Caddo Parish, thence run Easterly to the East Boundary of Caddo Parish, and all of that part of Ward 2 of Caddo Parish lying north of the following line, to-wit: Begin at the intersection of the Texas state line and the North line of Section 17, Township 20 North, Range 16 West, Caddo Parish, thence run Easterly to the East boundary of Ward 2 which is situated along the Clyde Place Canal.

Added by Acts 1966, No. 262, §1.

§2822. District as political subdivision and budgetary unit; purpose

The Black Bayou Watershed District shall be a political subdivision of the State of Louisiana and a budgetary unit of the State of Louisiana, which shall have as its purpose the conservation of soil and water, developing the natural resources and wealth of the district for sanitary, agricultural and recreational purposes, as the same may be conducive to the public health, safety, convenience or welfare or of public utility or benefit. The maintenance of the Black Bayou Lake within the said district as hereinafter authorized shall be for the purpose of conserving the soil and water and developing the natural resources and wealth of the district for sanitary, agricultural or recreational purposes, as the same may be conducive to the public health or public utility or benefit.

Added by Acts 1966, No. 262, §2.

§2823. Body corporate; powers

The Black Bayou Watershed District shall constitute a body corporate in law, with all the powers of a corporation, and with the powers and rights of a political subdivision of the state as provided by the laws of the state relating to the incurring of debt and the issuing of bonds therefor. This district, through its board of commissioners, may incur debt and issue negotiable bonds in accordance with the power and authority and in the form and manner, and with the effect and security now or hereafter provided by the Constitution

and laws of the State of Louisiana. This district, through its board of commissioners, may incur debt and contract obligations in accordance with law, sue and be sued, have a corporate seal, and do and perform any and all acts in its corporate capacity and in its corporate name which are necessary and proper for carrying out the purposes and objects for which it is created. It shall have the power of eminent domain and may expropriate property for all its purposes and objectives. Through its governing authority, the district may conserve the fresh water supply within its boundaries for the benefit of the inhabitants and property owners within said district and state to provide water for commercial, municipal and any other uses, both within and without the district. It may construct, lease, maintain, acquire, enlarge and operate any machinery or do any other thing necessary for the use and purpose of the district. It may own in full ownership all servitudes, rights of way, flowage rights and may inquire same by donation, prescription, purchase, expropriation, or otherwise. It shall have the authority to cooperate and contract with the government of the United States or any department or agency thereof. Added by Acts 1966, No. 262, §3.

§2824. Dam construction; board of commissioners created

The Department of Public Works is hereby granted the power and authority and is hereby directed to maintain present dams and to build and construct such other dams and works as may be necessary or beneficial to carry out the purposes of this Part and to create and impound an industrial water supply, in accordance with a survey and estimates to be made and established by the engineers of the said department. The Board of Commissioners of the Black Bayou Watershed District, with its powers and duties as defined herein, is hereby created and established for the purpose of aiding and assisting the said Department of Public Works during the actual construction stage and process of this project, and is established as the governing authority of said district after the completion of the construction process by the said Department of Public Works of the State of Louisiana.

Added by Acts 1966, No. 262, §4.

§2825. Board to govern; membership and tenure; vacancies; compensation

The said district shall be governed and controlled by the Board of Commissioners of the Black Bayou Watershed District, to be composed of five commissioners, each of whom shall be a qualified elector of the State of Louisiana who resides within the limits of Caddo Parish. The commissioners shall be appointed by the Police Jury of Caddo Parish and shall serve terms of four years and until their successors have been appointed and have qualified. Any vacancy in the office of commissioner, due to death, resignation, or any other cause, shall be filled by the remaining commissioners for the unexpired term.

The members of the board shall receive no compensation for their services.

Added by Acts 1966, No. 262, §5.

Before entering upon his official duties, each commissioner of the district created hereby shall take and subscribe to an oath before an officer authorized by law to administer oaths, that he will honestly, faithfully, and impartially perform the duties devolving upon him as a commissioner of said district and that he will not neglect any of the duties imposed upon him hereby. The oaths of the commissioner shall be recorded in the oath book of the parish of which said commissioner is a resident.

Added by Acts 1966, No. 262, §6.

§2827. Election of officers; record book; public inspection

Immediately after the commissioners have been appointed by the Police Jury of Caddo Parish, or as soon thereafter as practicable, the commissioners shall meet and immediately organize by electing officers as follows: They shall elect from among their number a president, who shall preside over the meetings of the board and perform such other duties as are usually required of presidents of corporate bodies, and also a vice president, who shall perform the duties of the president in case of his absence or disability.

The board shall cause to be kept a well-bound book entitled "Record Book of Black Bayou Watershed District", in which shall be recorded the minutes of all meetings, all proceedings, certificates, oaths of commissioners, bonds of employees and contractors, and any and all corporate acts. The records shall be in the possession of the secretary of the board and shall be open to public inspection at all times by any person interested. Added by Acts 1966, No. 262, §7.

§2828. Powers of board

In order to accomplish the purposes for which the district is created, the board of commissioners may:

- (1) Purchase, hold, sell and convey land and personal property and execute such contracts as it may deem necessary or convenient to enable it properly to carry out the purposes for which it is created.
- (2) Acquire servitudes, rights of way and flowage rights, by purchase and/or by expropriation.
- (3) Assist in conserving soil and water and in developing the water resources of the district; provided, however, nothing shall be done to interfere with districts previously organized under Louisiana law.
- (4) Under the supervision of the Louisiana State Department of Public Works, contract for the construction of proposed works and improvements.
- (5) Cooperate with the Department of Public Works in its construction of any drainage works or improvements, and the construction of any works or improvements for the control, retention, diversion or utilization of water; retard runoff of water and soil erosion, construct any ditch, channel improvement, dike, dam, or levee, and repair, improve and maintain any of said improvements or structures.
- (6) Acquire personal property by gift or purchase.

- (7) Levy taxes, issue bonds and incur indebtedness within the limitations prescribed by the Constitution of the State of Louisiana, and in the manner prescribed thereby.
- (8) Cooperate and contract with persons, firms, associations, partnerships and private corporations, and cities of this state, or other public corporations and with any other local, state and governmental agencies for the sale or use of any waters impounded hereby.
- (9) Select a domicile and home office for the district.
- (10) Create, construct and administer such recreational parks, playgrounds and public picnic areas as the board may consider necessary and to provide access to any lake or reservoir created by the district for the use of the public.
- (11) Do and perform any and all things necessary or incident to the fulfillment of the purposes for which this district is created, including all acts necessary to construct, lease, acquire in any manner, maintain, and operate dikes, dams, reservoirs, storage basins, locks, levees, flumes, conduits, spillways or other structures necessary, suitable or convenient to the purposes of the district.

Added by Acts 1966, No. 262, §8.

§2829. Rules and regulations

In order to accomplish the purposes of the district, to protect the works, improvements and property of the district, both real and personal; to secure the best results from the construction, operation, and maintenance thereof, and to prevent damage to the district by the misuse of any works, improvements or properties or by the pollution or misuse of the waters of the district or any water course therein, the board of Commissioners may make and enforce such rules and regulations as it shall deem necessary and advisable:

- (1) To protect and preserve the works, improvements and properties owned or controlled by the district; prescribe the manner of their use by public corporations and persons, and preserve order within and adjacent thereto;
- (2) To prescribe the manner of building bridges, roads, or fences or other works in, along or across any channel, reservoir or other construction of the district;
- (3) To prescribe the manner in which ditches, sewers, pipelines or other works shall be adjusted to or connected with the works of the district or any water course therein and the manner in which the water courses of the district may be used for sewer outlets or for disposal of waste;
- (4) To prescribe the permissible uses of the water supply, provided by the impoundment constructed as hereinafter set forth and to collect therefor and the manner of its distribution and to prevent the pollution or unnecessary waste of such water supply;
- (5) To prohibit or regulate the discharge into sewers of the district of any liquid or solid waste deemed detrimental to the works and improvements of the district;
- (6) To coordinate and cooperate with the State Department of Public Works, and be guided by the plans and program of the said department, in the maintenance and improvement and/or construction by the latter of a necessary and adequate dam and impoundment on Black Bayou, Caddo Parish, Louisiana;
- (7) REPEALED BY ACTS 1993, NO. 830, §2. Added by Acts 1966, No. 262, §9; Acts 1993, No. 830, §2.

§2830. Department of public works; general powers

The Department of Public Works of the State of Louisiana is hereby authorized to do and to perform all acts necessary to construct, lease, acquire in any manner, maintain, and operate dikes, dams, reservoirs, storage basins, locks, levees, flumes, conduits, spillways and any and all structures necessary, suitable or convenient for the purpose of the construction and creation of Black Bayou Lake and the dam creating such lake located on or near the point where State Route 109 presently crosses Black Bayou in Caddo Parish, Louisiana in accordance with appropriate plans of the engineers of the said Department of Public Works and the survey or surveys made or to be made by the Department in connection with the creation and construction of the said Black Bayou Lake.

Added by Acts 1966, No. 262, §10.

§2831. Enumerated powers

In order to accomplish the purposes of the district and the creation and construction of the said lake, the State Department of Public Works is hereby authorized;

- (1) To purchase, hold, sell and convey land and personal property and execute such contracts as may be deemed necessary or convenient to enable it to properly carry out the purpose of the construction of the said dam, spillway across said Black Bayou and the creation, control and organization of Black Bayou Lake;
- (2) To acquire servitudes, rights of way and flowage rights, by purchase and/or expropriation;
- (3) To assist in conserving the soil and water and in developing the water resources of the district:
- (4) To contract for the construction of the proposed works and improvements;
- (5) To construct any drainage works or improvements for the control, retention, diversion or utilization of water; retard runoff of water and soil erosion; construct any ditch, channel improvement, dike, dam or levee and repair, improve and maintain any of said improvements or structures;
- (6) Acquire such personal property, by gift or purchase, as is necessary in the construction of said dam and the creation of the said Black Bayou Lake;
- (7) To do any and all things necessary or incident to the fulfillment of the purposes of this Part.

Added by Acts 1966, No. 262, §11.

§2832. Execution of work; contracts; bond

The State Department of Public Works may execute any and all work with its own force and equipment and under its own supervision or the work may be executed on behalf of and for the benefit of the said district by the State of Louisiana, or any agency, department or commission thereof by contract and the contract for all or any part of the work herein authorized may be let by the State Department of Public Works, with or without advertisement, on the terms and subject to the conditions which the said department may determine. The person or firm to whom the contract or contracts is

awarded shall furnish, within the delay fixed by the Department of Public Works, a bond of a surety company authorized to do business in the State of Louisiana, in the amount required by the laws relating to contracts for public work, conditioned upon the faithful performance of the work in accordance with the plans and specification of the engineers of the State Department of Public Works and the terms of the contract. The Department may demand any other bonds and obligations which the laws relating to public works contracts require the contractor to give.

Added by Acts 1966, No. 262, §12.

§2833. Eminent domain

The State Department of Public Works is hereby granted the power of eminent domain and the right to expropriate any and all lands, flowage rights, servitudes, and rights of way necessary and convenient for the construction of the said dam, spillway, reservoir, storage basins, locks, levees, flumes, conduits, spillways or other structures necessary, suitable or convenient in connection with the construction thereof, as well as for the creation of the said lake, impoundment and reservoir within the boundaries as hereinabove set forth.

Added by Acts 1966, No. 262, §13.

§2834. Supervisory control over board

All the powers and duties conferred upon the Board of Commissioners herein shall be subject to the supervisory control of the Department of Public Works of the State of Louisiana and to the Wildlife and Fisheries Commission of the State of Louisiana or its successor, with jurisdiction by the latter over the fish, game and wildlife of the State of Louisiana and of the said Black Bayou Watershed District.

Added by Acts 1966, No. 262, §14.

§2835. Constructions impeding flow of waters prohibited

No person or public corporation shall erect within the drainage area of the district any dam or reservoir upon any stream or water course therein or any work or obstruction diminishing the cross section of any such stream or water course until a copy of the plans thereof has been filed with the Board of Commissioners and the State Department of Public Works, for approval or rejection by both.

Added by Acts 1966, No 262, §15.

§2836. Contracts let by board; bond

Subject to the supervisory control of the State Department of Public Works, any and all contracts of the district may be let by the board of commissioners, with advertisement, on the terms and subject to the conditions which it may fix in the ordinance or advertisement calling for bids. The person or firm to whom any contract is awarded shall furnish, within the delay fixed by the board, a bond of a surety company authorized to do business in the State of Louisiana, in the amount required by the laws relating to contracts for

public works, and conditioned that the work shall be performed in accordance with the plans and specifications of the engineers of the State Department of Public Works, and the terms of the contract, and the board shall demand any other bonds and obligations which the laws relating to public works contracts require the contractor to give.

The board of commissioners and the State Department of Public Works may execute any and all work with its own force and equipment and under its own supervision or the work may be executed on behalf of and for the benefit of the district by the State of Louisiana, or any agency, department or commission thereof.

Added by Acts 1966, No. 262, §16.

§2837. Playgrounds, parks and other facilities; limitation

The board of commissioners, under the supervisory control of the State Department of Public Works, shall have the power to cause to be created and constructed playgrounds, picnic grounds, grounds for recreation parks, and any and all other facilities to accommodate the public and to provide adequate access to the said lake, as may within the opinion of the said board become necessary but not to exceed two acres at any one place, and said district shall have the right of eminent domain and expropriation in the exercise of such powers.

Added by Acts 1966, No. 262, §17.

§2838. Attorney general as counsel

The attorney general of the State of Louisiana and his assistants shall be and are hereby designated as counsel for the State Department of Public Works and the said district in the execution of the purposes of this Part and are hereby charged with the responsibility of representing the said State Department of Public Works and the board of commissioners in any and all matters when called upon to do so.

Added by Acts 1966, No. 262, §18.

§2839. REPEALED BY ACTS 1993, NO. 830, §2.

§2840. Tax exemption

The lands which lie within and form the Black Bayou Lake proper shall not be subject to any ad valorem taxation or any other tax of any nature whatsoever by either the State of Louisiana or any of its political subdivisions, for so long as the said lands shall form and lie within the lake proper. All property acquired, however, regardless of the manner in which it is acquired or the source from which it is acquired, shall thereafter become the property of the State of Louisiana for the use and benefit of the Black Bayou Watershed District.

Added by Acts 1966, No. 262, §20.

§2841. Grant of state lands to district; right of mineral leases unabridged

All lands comprising the bed and bottom of Black Bayou belonging to the State of Louisiana within the said area, as provided in R.S. 38:2821, and which are necessary to

the erection and maintenance of said Black Bayou Lake are hereby granted to the Black Bayou Watershed District for the purposes herein set out, but this grant shall in no wise abridge the right of the state to lease the said land for the production of oil, gas and other minerals under the general laws of the state as now provided. Added by Acts 1966, No. 262, §21.

§2842. Individual mineral leases unabridged

The provisions of this Part shall in no wise abridge the right of any individual from whom the flowage rights, rights of way and servitudes may have been acquired by any means however to lease said lands for the production of oil, gas and other minerals and the right of such lessee or his assignee to produce or cause to be produced oil, gas or other minerals therefrom.

Added by Acts 1966, No. 262, §22.

APPENDIX II – Black Bayou Lake Public Boat Ramps (<u>return to document</u>)



APPENDIX III – Aquatic Vegetation Type Maps (<u>return to aquatic vegetation</u>)

Black Bayou Lake – Aquatic Vegetation Type Map and Narrative – 2006

Black Bayou Lake (Caddo Parish) 2006

A vegetation type mapping survey was conducted on Black Bayou Lake (3,968 acres/Caddo Parish) on November 3, 2006 by Louisiana Department of Wildlife and Fisheries, Inland Fisheries personnel. Jeff Sibley, Todd Bridges, and Patricia Baker identified the major aquatic plant species present in the lake and assessed the extent of coverage around the lake. At the time of the survey, the lake was 18" below pool. Secchi readings ranged from 12 inches in the main lake area (due to recent rains); to in excess of 4 feet in heavily vegetated areas.

The following species of aquatic macrophytes were identified in Black Bayou Lake: hydrilla (Hydrilla verticillata), coontail (Ceratophyllum demersum), southern cutgrass (Leersia hexandra), American lotus (Nelumbo lutea), fragrant water lily (Nymphaea odorata), water hyacinth (Eichhornia crassipes), primrose (Ludwigia spp.), alligatorweed (Alternanthera philoxeroides), fanwort (Cabomba caroliniana), pondweed (Potamogeton spp.), watermeal (Wolffia spp.), southern naiad (Najas guadalupensis), southern watergrass (Luziola fluitans) and arrowhead (Sagittaria spp.).

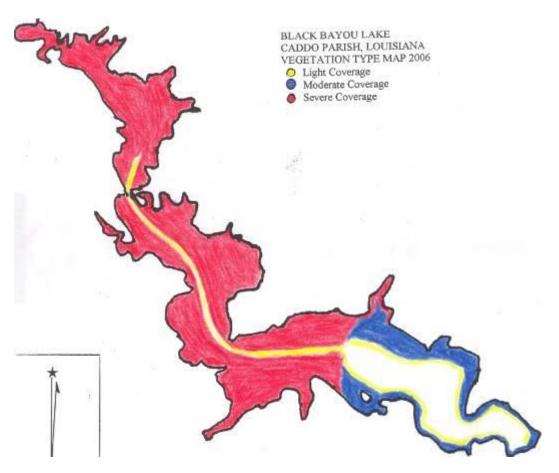
Aquatic vegetation covers approximately 70-75% of Black Bayou Lake. The lake can be bisected into two sections. The upper part of the lake is a dense cypress – tupelo forest and access is limited to the main channel for most vessels. The lower part of the lake has standing cypress trees, but is a much more "open-lake" environment. The entire waterbody is shallow and flat with few areas exceeding 8 feet in depth.

Hydrilla (*Hydrilla verticillata*) was present near the public boat launch at the dam, but decreased in density as one traveled away from the launch. Submerged vegetation was predominant on the open water part of the lake. Submerged vegetation expands across the entire lake bottom as one goes up the lake. The shallow water and lack of bottom contours have allowed the vegetation to expand. Submerged macrophytes are even present in the marked boat lane in some areas, but may not be topped out due to boat traffic. Fanwort (*Cabomba caroliniana*) was found out to 8 feet below normal pool stage.

In the forested part of the lake, the aquatic vegetation community changed somewhat. Floating plants were more prevalent. Large rafts of water hyacinth (*Eichhornia crassipes*) were present amongst the trees and watermeal (*Wolffia spp.*) densities increased dramatically.

Above text edited, condensed and corrected by James Seales, March 2012, from original document written by Jeff Sibley.

2006 Type Map



Black Bayou Lake – Aquatic Vegetation Type Map and Narrative – 2009

Black Bayou Lake 2009

The vegetation type mapping survey was conducted on Black Bayou Lake (3,968 acres/Caddo Parish) in June 2009 by employees of the Louisiana Department Wildlife and Fisheries, Inland Fish Division. Personnel identified the major aquatic plant species present in the lake and assessed the extent of coverage around the lake. At the time of the survey, the lake was at pool stage.

The following species of aquatic macrophytes were identified in Black Bayou Lake: hydrilla (Hydrilla verticillata), coontail (Ceratophyllum demersum), southern cutgrass (Leersia hexandra), American lotus (Nelumbo lutea), fragrant water lily (Nymphaea odorata), water hyacinth (Eichhornia crassipes), primrose (Ludwigia spp.), alligatorweed (Alternanthera philoxeroides), fanwort (Cabomba caroliniana), pondweed (Potamogeton spp.), watermeal (Wolffia spp.), southern naiad (Najas guadalupensis), southern watergrass (Luziola fluitans), arrowhead (Sagittaria spp.) and giant salvinia (Salvinia molesta).

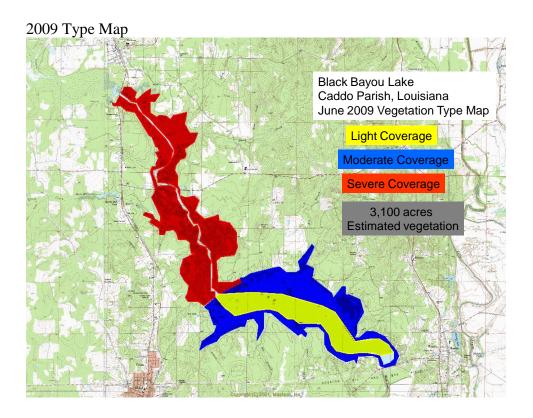
Aquatic vegetation covers approximately 80% of Black Bayou Lake. The lake can be bisected into two sections. The upper part of the lake is a dense cypress – tupelo forest and access is limited to the main channel for most vessels. The lower part of the lake has standing cypress trees, but is a much more "open-lake" environment. The entire waterbody is shallow and flat with few areas exceeding 8 feet in depth.

Hydrilla (*Hydrilla verticillata*) was present near the public boat launch at the dam, but decreased in density as one traveled away from the launch. Submerged vegetation was predominant on the open water part of the lake. Submerged vegetation expands across the entire lake bottom as one goes up the lake. The shallow water and lack of bottom contours have allowed the vegetation to expand. Submerged macrophytes are even present in the marked boat lane in some areas, but may not be topped out due to boat traffic. Fanwort (*Cabomba caroliniana*) was found growing to depths of 8 feet.

In the forested part of the lake, the aquatic vegetation community changed somewhat. Floating plants were more prevalent. Large rafts of water hyacinth (*Eichhornia crassipes*) were present amongst the trees and watermeal (*Wolffia spp.*) densities increased dramatically.

Giant salvinia (*Salvinia molesta*) was first found in the lake in 2007 near the two public ramps. It has expanded slowly on this lake relative to other waterbodies in the region. There was less than 25 acres of giant salvinia (*Salvinia molesta*) on the lake at the time of the survey and is generally found in small mats on top of submerged vegetation or primary plants mixed in with watermeal (*Wolffia spp.*). This slow expansion of plants is most likely due to competition with the tremendous amounts of other aquatic plants present. Small amount of giant salvinia (*Salvinia molesta*) could be found near the public launch by the spillway, but most giant salvinia (*Salvinia molesta*) was found in the forested portions of the lake and especially in areas above the Noah Tyson Park.

Above text edited, condensed and corrected by James Seales, March 2012, from original document written by Jeff Sibley.



APPENDIX IV – Fish Consumption Advisory

(return to contaminants)



Frederick P. Cerise. M.D., M.P.H. Secretary Department of Health & Hospitals P. O. Box 629 Baton Rouge, LA 70821-0629

Mike D. McDaniel, Ph.D. Secretary Department of Environmental Quality Wildlife & Fisheries P. O. Box 4301 Baton Rouge, LA 70821-4301

Dwight Landreneau Secretary Department of P. O. Box 98000 Baton Rouge, LA 70898-9000

The following fish consumption advisory was issued on March 8, 2006 by the Department of Health & Hospitals, the Department of Environmental Quality, and the Department of Wildlife & Fisheries. For more information, please contact:

> DHH Shannon Soileau (888) 293-7020

DEO Chris Piehler (225) 219-3615

DWF Joe Shepard (225) 765-2331

FISH CONSUMPTION ADVISORY FOR BLACK BAYOU LAKE

In response to recent sampling and analysis of fish-mercury data, the Louisiana Department of Health & Hospitals (DHH), Department of Environmental Quality (DEQ), and Department of Wildlife & Fisheries (DWF) are issuing the following advisory for Black Bayou Lake in Caddo parish where unacceptable levels of mercury have been detected in largemouth bass and bowfin (choupique, grinnel).

DHH, DEQ, and DWF advise that the following precautions be taken when eating fish taken from Black Bayou Lake:

- Women of childbearing age and children less than seven years of age should consume no more than ONE MEAL PER MONTH of largemouth bass and bowfin combined from the advisory area (a meal is considered to be half a pound of fish for adults and children).
- Other adults and children seven years of age and older should consume no more than FOUR MEALS PER MONTH of largemouth bass and bowfin combined from the advisory area (a meal is considered to be half a pound of fish for adults and children).

Fish Consumption Advisory for Black Bayou Lake Page 2

• Unless the fish species is specifically addressed in the details of the advisory, please limit consumption of all species in an advisory area to 4 meals per month. Louisiana fish consumption advisories are based on the estimate that the average Louisiana resident eats 4 fish meals per month (1 meal = ½ pound). If you or your family members eat more than 4 meals of fish a month from local water bodies, you might increase your health risks. You can contact the Office of Public Health toll free at 1-888-293-7020 for more information about eating fish that contain chemicals.

Mercury is an element that occurs naturally in the environment. It is released into the environment through natural processes and human activities. Consequently, there are small amounts of mercury in lakes, rivers, and oceans. Here, the mercury is turned into methylmercury, a form that is particularly harmful to an unborn baby or young child. Fish absorb methylmercury as they feed on aquatic organisms. Nearly all fish contain trace amounts of methylmercury. Larger fish, especially those that feed on other fish, contain more methylmercury than smaller fish. Therefore, in general, it is recommended that smaller fish be consumed instead of larger ones.

People are exposed throughout their lives to low levels of mercury. One way they can be exposed to mercury is from eating contaminated fish. Pregnant women can pass mercury from the fish they eat to their unborn babies, and nursing mothers can pass the mercury to their infants through their breast milk. Health effects from harmful levels of mercury can include nervous system and kidney damage. Developing fetuses are more sensitive to the toxic effects of mercury, especially in the first trimester of pregnancy. In addition to developing fetuses, infants and children are more sensitive to the effects of mercury; therefore, consumption advisories are issued at lower fish tissue concentration levels for these groups.

This advisory is issued as a precaution. Further sampling will be carried out by DEQ to determine the need for modifications to this advisory, including an adjustment of the boundaries if necessary. If you have consumed largemouth bass or bowfin from these waters, it is not likely that there is an immediate need to be concerned about the effects of mercury. However, you should consult your personal doctor if you are concerned.

Jimmy Guidry, M.D. State Health Officer and Medical

State Health Officer and Medical Director

Department of Health & Hospitals

Sharon G. Howard

Assistant Secretary, Office of Public Health

Department of Health & Hospitals

Fish Consumption Advisory for Black Bayou Lake Page 3
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Frederick P. Cerise, M.D., M.P.H.
Secretary
Department of Health & Hospitals
Mila D. M. Sanl
Mike D. McDaniel, Ph.D.
Secretary
Department of Environmental Quality
Janes Janahum
Dwight Landreneau
Secretary
Department of Wildlife & Fisheries